REMARKS

Reconsideration and allowance of the above-identified application are respectfully requested. Upon entry of this Amendment, claims 1-21 are pending. A terminal disclaimer and corrected formal drawings are being filed concurrently herewith.

In the office action, claims 1-21 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over copending application serial no. 10/434,101 in view of U.S. Patent No. 6,697,238, to Bonilla et al. A terminal disclaimer is being filed herewith regarding U.S. Patent No. 6,697,238. Further, since an obviousness-type double patenting rejection has also been issued in copending application serial no. 10/434,101 to reject the claims therein as unpatentable in view of U.S. Patent No. 6,697,238, to Bonilla et al, a separate terminal disclaimer is being submitted in that application. Accordingly, this basis for rejecting claims 1-21 is believed to be overcome.

With regard to the objections to the drawings, formal drawings are being submitted herewith. Fig. 3 has been corrected to include the label "11" and corresponding lead line and arrow. The specification has been amended herein to identify Fig. 12 as a schematic diagram, as well as to correct typographical errors and overcome objections to the specification set forth in the office action. The office action states that pages 15-17 of the specification are missing. Applicants submit these pages herewith. The text of these pages is also found in the parent application Serial No. 10/434,101.

Claim 2 has been amended herein to correct a typographical error and therefore overcome a claim objection thereto.

Claims 1-3, 5-8, 11 and 14-17 are rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,522,510, to Finlay et al (hereinafter referred to as "Finlay et al"). Claims 9 and 10 are rejected under 35 U.S.C. §103(a) as being obvious over Finlay et al in view of U.S. Patent No. 5,202,662, to Bienwald et al (hereinafter referred to as "Bienwald et al"). Claims 12 and 13 are rejected under 35

U.S.C. §103(a) as being obvious over Finlay et al in view of U.S. Patent No. 6,246,558, to DiSalvo (hereinafter referred to as "DiSalvo").

Claim 1 has been amended to overcome the inadvertent omission in the original claim 1 of relating the recited fuse to the recited alarm indicator, as was done in original independent claim 15. Finlay et al does not disclose or suggest the inventions recited in claims 1 and 15. Independent claims 1 and 15 each recite a fuse that blows "when said latching mechanism fails," and an alarm indicator that indicates that the protection device is not providing ground fault detection when the fuse blows.

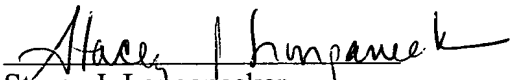
Referring to Finlay et al, the circuits in Figs. 1 and 2 thereof do not employ a fuse. Only Fig. 3 of Finlay et al employs a fuse F1 and is distinguished from the claimed invention following comments regarding Figs. 1 and 2 of Finlay et al below. Secondly, the circuits in Figs. 1 and 2 do not indicate when the solenoid 110 fails to open contacts 120 during a manual test. Instead, these circuits employ a neon lamp 140 that illuminates when a *solenoid driving device* such as the SCR Q1 is defective and therefore causes the GFCI to trip (see column 5, lines 27-31 of Finlay et al) and therefore not when the solenoid 110 fails to open contacts 120. In addition, as stated in column 5, lines 32-38 of Finlay et al, the coil 110 is "continuously energized" and therefore 'burns out" due to the "continuously applied line voltage to the solenoid as a result of a shorted SCR Q1" causing "the trip solenoid (coil 110) to open." The light "remains energized" when the "GFCI is reset in this condition." Thus, the light 140 is not illuminated in response to the contacts 120 failing to open, and is not operating as a result of conditions imposed by a manual test.

Fig. 3 of Finlay et al employs a fuse F1 which is part of a "lock out" circuit that is an alternative embodiment to the lock out configuration depicted in Fig. 2 of Finlay et al. This lock out configuration is completely unrelated to an indicating circuit for when a latching mechanism fails to open and a fuse blows as claimed in independent claims 1 and 15. As stated in column 5, lines 60-63 of Finlay et al with regard to Fig. 2 thereof, since the device cannot be reset "there is no need to indicate via light 140 that the device has a faulty SCR" since the inability to reset the device signals that condition.

Bienwald et al and DiSalvo fail to overcome the deficiencies of Finlay et al. Accordingly, the rejections of the claims under 35 U.S.C. §§ 102(b) and 103(a) are believed to be overcome and withdrawal of these claim rejections is respectfully requested.

In view of the above, it is believed that the application is in condition for allowance and notice to this effect is respectfully requested. Should the Examiner have any questions, the Examiner is invited to contact the undersigned at the telephone number indicated below.

Respectfully Submitted,



Stacey J. Longanecker
Attorney for Applicants
Reg. No. 33,952

Roylance, Abrams, Berdo & Goodman, L.L.P.
1300 19th Street, N.W., Suite 600
Washington, D.C. 20036
(202) 659-9076

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latching plate 153 is positioned such that the reset pin 156 freely passes through the latching plate 153.

[0061] Locking plate 157 is used to place the GFCI 115 in a reset prevention state. The locking plate can be a pin type device, which is inserted through the aperture 142 during the manufacturing process between the plunger 151 and the secondary contacts 162, thus closing the secondary contacts 162. When the GFCI 115 is powered from the load side, there is no power to the solenoid 150. Therefore, the GFCI 115 remains in a reset prevention state because upper shoulder 149 of the reset pin 156 cannot latch with the bottom surface of the latching plate 153 and reset the GFCI 115. When the GFCI 115 is powered from the line side, the solenoid is powered and moves the plunger in the direction of "B" slightly misaligning the aperture 154 in the latching plate 153 with the reset pin 156, thus allowing the upper shoulder 149 of reset pin 156 to contact the lower surface of latching plate 153, and thus pull latch plate 153 and latch block 159 upward to close the contacts of latching mechanism 178 in a manner similar to that discussed with regard to latch plate 54 and latch block 63. The locking plate 157 falls and opens the secondary contacts 162, removing power from the solenoid 150.

[0062] This embodiment of the invention will now be discussed with reference to FIG. 13-16 which are views illustrating examples of positions of a locking plate in the GFCI of FIG. 12 in accordance with an embodiment of the present invention. In FIG 13, secondary contacts 162 are open and the locking plate 157 is being inserted into the GFCI 115 via the aperture 142.

[0063] In FIG. 14, the locking plate 157 comprising a pin type device is inserted between the plunger 151 and the secondary contacts 162, thus closing the secondary contacts 162 and allowing the secondary contacts 162 to power the solenoid 150 if the GFCI 115 is wired from the line side. The latching plate 153, however, is positioned to allow the reset pin 156 to freely pass through the aperture 154 and thus not engage with the latching plate 153 unless the GFCI 115 is connected to the line side in a manner similar to that discussed above with regard to FIGS. 4-10.

[0064] In FIG. 15, the GFCI 115 has been wired to the line side and the plunger 151 moves in the direction of "B" to release the locking plate 157. IN FIG. 16, the plunger 151 moves in the direction of "A" allowing an aperture in the latch plate 153 to be slightly misaligned with the reset pin 156 as shown in FIG. 16.

[0065] FIGS. 17A and 17B are cross sectional views illustrating examples of positions of an initial reset prevention arrangement that can be used with a GFCI in accordance with another embodiment of the present invention. For conciseness, the details of the reset button, and reset pin are not repeated here. In FIG. 17, the locking plate 182 comprises a vertical member 182A connected to a horizontal member 182B proximate the center of the horizontal member 182B. A locking spring 180 is disposed between a portion of the inner housing 113 and an end of the horizontal member 182B. The locking spring 180 exerts force on the horizontal member 182B in the direction of "C". An opposing end of the horizontal member 182B makes contact with secondary contacts 178 in order to close the secondary contacts 178. The locking plate 182 is shown in a non-initial reset prevention state. That is, the plunger end 151 does not retain the vertical member 182A of the locking plate 182 in a position in which the horizontal member 182B closes the secondary contacts 178 by making contact with the secondary contacts 178.

[0066] Referring now to FIG. 17B, the plunger end 151 is shown retaining the vertical member 182A of the locking plate 182 which enables the horizontal member 182B to close the secondary contacts 178. The latch plate 153 is positioned so that the end of the reset pin (not shown) can freely pass through the opening 154 as discussed above, to prevent resetting. As also discussed above, the locking spring 180 is compressed by an end of the vertical member 182 which exerts force in the direction of "C". When the GFCI is powered from the line side, the secondary contacts 178 power the solenoid 150 which results in the plunger 151 moving in the direction of "A", thus releasing the locking plate 182. Substantially simultaneously, the spring 180 exerts force on the horizontal member 182B to propel the horizontal member 182B in the direction of "C" and open the secondary contacts 178.

[0067] FIGS. 18A and 18B are cross sectional views illustrating examples of positions of a another initial reset prevention arrangement that can be used with a GFCI in accordance with an embodiment of the present invention. Referring to 18B, the solenoid 150 includes a plunger 184 having a vertical member 184A, a horizontal member 184B and an aperture 184C. The vertical member 184A is connected to the solenoid 150 and to a latching plate 186, which is similar to latching plate 153 discussed above. The horizontal member 184B is connected to the vertical member 184A. In an initial reset prevention state, the pin 191 of locking plate 190 is aligned with and passes through aperture 184C engages with the upper surface of horizontal member 184B, and thus closes the secondary contacts 192. In this position, an aperture 187 in the latching plate

186 is substantially aligned with a reset pin (not shown) to thus allow the reset pin to pass through the aperture 187. Thus, the reset pin cannot latch with the latching plate 186 and close the latching mechanism (not shown) to reset. The locking spring 188 is compressed and exerts force on the locking plate 190 in the direction of "C". However, the locking spring 188 cannot pull the locking plate 190 out of the aperture 184C unless the GFCI is powered from the line side.

[0068] Referring now to FIG. 18A, the GFCI has been wired to the line side. The secondary contacts 192 power the solenoid 150 moving the plunger 184 in the direction of "B". This movement releases the locking plate from aperture 184C. The locking spring 180 propels the locking plate 190 away from the aperture 184C and secondary contacts 192 to a position of rest as shown. The release of the locking plate 190 moves the latching plate 186 to slightly misalign the aperture 187 in the latching plate 186 with the reset pin. Thus, the reset pin can engage the latching plate 186 and reset the contacts to a closed state in a manner similar to that discussed above.

[0069] Those skilled in the art can now appreciate from the foregoing description that the broad teachings of the present invention can be implemented in a variety of forms. Therefore, while this invention can be described in connection with particular examples thereof, the true scope of the invention should not be so limited since other modifications will become apparent to the skilled practitioner upon a study of the drawings, specification and following claims.